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The Evolution of Agricultural Pricing Policies in Zimbabwe : 1970's and 1980's

by

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THE EVOLUTION OF AGRICULTURAL PRICING POLICIES IN ZIMBABWE - 1970's AND 1980's

by N. A. WRIGHT and T. TAKAVARASHA

The object of this paper is to discuss the development of agricultural pricing policies in Zimbabwe during the 1970's and 1980's and to make special note of changes in policy formulation since independence in 1980. In approaching the topic the paper first gives an outline of the formal marketing system for controlled agricultural commodities as it existed in 1970, and discusses the procedures and methods of price determination and the institutions involved. A brief description of state intervention in agriculture and the main events that have influenced the direction of agricultural development prior to 1970 follows. Finally the paper assesses the various policy objectives which have affected price levels, and the impact of price levels on marketed output of state controlled commodities during the 1970's and 1980's. Influences that are extraneous to pricing which have affected agricultural production over the period are also examined in-so-far as they either enhanced or negated the price policy objectives for individual commodities.

A AGRICULTURAL MARKETING AND PRICING IN 1970

i) The Single Channel Marketing System for Agriculture in 1970

Direct state intervention in marketing and pricing in agriculture had been in operation in Zimbabwe since the early 1930's (see section B for a description of these interventions). By 1970 four statutory bodies, which were subsiduary to a fifth parastatal, had been constituted under seperate Acts of Parliament to operate single channel marketing systems for many agricultural products. The Agricultural Marketing Authority, formed in 1967, was tasked with the overall objective of advising its parent ministry (the Ministry of Agriculture) on the pricing and marketing of state controlled or regulated agricultural commodities. Its main functions were the formulation of overall marketing policy and finance raising for its subsiduary boards. Policy and pricing recommendations were derived through a system of advisory committees which included members from its parent ministry and producer organisations. The General Managers of each of the four marketing boards were responsible to the Authority.1 This system still operates in 1989.

The four subsiduary boards were the Grain Marketing Board (formed in 1931), the Cold Storage Commission (1937), the Dairy Marketing Board (1952), and the Cotton Marketing Board (1969).2 All of these Boards had degrees of monopsony or monopoly control over specific commodities (see section B for details of the commodities).3 For example the Grain Marketing Board had monopsony purchasing controls over commodities for which it was responsible in so-called Zone A areas (which includes all the commercial farm and main urban areas), and only a residual buying function in Zone B areas (which includes all the communal farming

areas). In the former areas commodity prices were prescribed by government and all grain and oilseed products not retained for on-farm use had to be sold through the Grain Marketing Board. Prices were not controlled within the Zone B areas, and communal farmers could either sell these products to consumers within their own communal areas at ruling free market prices or to the Grain Marketing Board at the current prescribed prices. The Cotton Marketing Board enjoyed a country-wide monopsony control over the purchase and sale of cotton. The other two agricultural marketing parastatals' absolute monopoly powers were limited to exports and, subject to certain regulations, internal trade in cattle and milk could take place without parastatal involvement.[4] However both the Cold Storage Commission and Dairy Marketing Board effectively controlled prices on the domestic market for their respective products by virtue of their very substantial share of these markets. All the Boards were required to sell their commodities at prescribed prices on the domestic market and to best advantage on external markets.[5] The guiding principle in carrying out their marketing functions was that these activities should financially result in a non profit - non loss trading result in the long term. This system of marketing controls has remained in force with some minor amendments since 1970.[6]

ii) Prices for Controlled Agricultural Products

Prices for controlled crop commodities took the form of interim and final prices. In terms of the Grain Marketing Act, prescribed or "final" prices for summer crop commodities under its control had to be gazetted on or before the 1st May (later changed to July 1st) of each marketing intake year commencing on the 1st April of the same year (there was a provision for advance payments at levels set by the Minister to producers for deliveries during April). The prescribed price for wheat had to be gazetted on or before the 1st October. Prices applicable during the period between the commencement of the marketing year and the date of the gazetting of final prices were "interim" prices which, almost invariably, were the prices that had applied in the previous marketing year (after 1975 "interim" prices consisted of preplanting prices). In price setting quality factors were taken into account and price differentials existed for different grades of product delivered. If at any time during the intake period the Minister was of the opinion that because of satisfactory marketing performance supplementary payments to producers were justified he could direct the Board to make these payments (after consultation at cabinet level). Similar provisions concerning payments to producers existed in the Marketing Acts for the other Boards. However seasonal variations in price levels were built into the price schedules for livestock commodities to cater for desired intake levels during the year and increased maintenance feeding costs during the dry season.[7]

iii) Institutional Pricing Procedures - 1970's

The great importance attached to the pricing of major state controlled agricultural commodities in the 1970's was reflected

level. However several institutions were involved in the decision making process up to this level. The pricing procedure began with in-house discussions by both the Agricultural Marketing Authority and the R.N.F.U.(now the C.F.U.). Prices would be discussed by the various committees of the Agricultural Marketing Authority from the standpoint of marketing performance and the effects of any price changes on the trading accounts of the marketing boards. Similar discussions would take place at the union with the focus on changes in costs of production. Several commodity associations representing large scale producers of specific commodities were affiliated to the union. Elected representatives of these associations and those of the union would discuss and decide on price recommendations to be made to the Agricultural Marketing Authority and to government.

Formal procedures began with meetings between producer representatives and the Agricultural Marketing Authority. Depending on the outcome of these discussions and marketing performance shown in the trading accounts of the marketing parastatals decisions were then made by the Agricultural Marketing Authority on prices to recommend to the Ministry of Agriculture. Budgeted trading accounts based on these prices were prepared which reflected the anticipated financial performance of the marketing parastatals and any subsidies payments which may have been involved. These were forwarded to the Ministry of Agriculture together with written submissions justifying the price recommendations. This procedure was later followed by meetings between Agricultural Marketing Authority representatives and the Minister and senior officials of the Ministry of Agriculture to discuss the recommendations.

Following meetings with the Agricultural Marketing Authority the commodity associations of the R.N.F.U. would submit written proposals on prices to the Ministry of Agriculture for their perusal prior to meetings held between producer representatives and the Minister of Agriculture and his senior officials. The submissions would include detailed schedules of production costs which would demonstrate the effects on the economic viability of producing a particular commodity of any input price changes that had occured. At the meetings producers were given the opportunity to put forward their views on pricing policy and price levels. These meetings took place at different times of the year depending on the marketing board intake periods for particular commodities, and (after 1976) whether preplanting prices or final prices were being considered.

After the series of meetings with marketing and producer representatives internal meetings within the Ministry of Agriculture were held where the Minister of Agriculture and his senior officials would decide on prices to recommend to cabinet. The responsibility for setting price levels lay with the Minister who was guided by his officials. Unlike in the immediate post second world war period when deficit production levels prevailed for the major controlled products and a costs plus profit margin

technique was used to set price levels in the 1970's. However several interrelated factors were considered when setting prices. These factors were :-

a) current and anticipated production levels. Crop production information from the crop forecasting committee of the Central Statistical Office was used for crop commodities. Information from surveys conducted by the Central Statistical Office was used for livestock commodities.

b) onfarm costs of production were an important consideration in assessing the economic viability of producing particular commodities. Schedules of costs were produced by the Economics and Markets Branch of the Ministry of Agriculture and the Economics Branch of the Union. Great reliance was placed on farm management data collected from commercial farms in surveys conducted by the Farm Management Research Section of the Ministry towards the end of the 1960's and during the first half of the 1970's. However by 1977 the war had taken its toll on the number of farmers willing to cooperate and the collated data from those remaining on the recording scheme were unreliable as indicators of economic viability. Thereafter "model" costs for each commodity, based on input levels necessary to achieve an expected yield in normal rainfall conditions, were used to assess production viability.

c) marketing board trading performance. In assessing the impact of producer price changes on the trading accounts of the relevant marketing marketing board several factors had to be considered. These included :-

- both current and anticipated intake levels
- carried forward stock levels
- the volume of domestic and export sales
- export markets and the likely level of realisations from each type of market
- foreign exchange earning priorities and possible subsidies arising from depressed world prices (if applicable)
- for some commodities the volume and cost of imports
- consumer prices (which was the responsibility of the Ministry of Trade and Commerce)
- the strategic value of maintaining production of a particular commodity and its contribution to the welfare of the farming sector and to that of the country
- board handling costs
- cheap food policies and the level of possible subsidies arising from these policies
- intercommodity price relationships (eg. being an input into the livestock industries maize price levels directly affected the viability of livestock production).

Estimates of many of these items were reflected in the trading account budgets for the following year.

Each factor was weighted according to the type of commodity being considered. Anticipated export realisations had a greater bearing on price levels for commodities which were largely exported (eg.cotton) than other factors. On the other hand strategic stockpiles, envisaged production, domestic consumption

requirements, and internal producer, selling, and consumer prices for maize were usually more important than possible export realisations when determining prices for this commodity. Due consideration would be given to all facets important to each case and a price recommendation derived for each commodity. A paper with supporting data would be prepared and forwarded to the M.E.C.C. working party (which was a committee consisting of senior officials of the economic ministries and chaired by the Ministry of Finance) where the effects of the proposed price increases on the economy were deliberated. When the proposals were accepted (either in the original or amended form) they were debated by the ministers of the economic ministries. Thereafter the proposals would go to cabinet where a final decision would be made. At this level the political merits of the proposed commodity price levels would be discussed. Although cabinet usually adopted the recommendations of M.E.C.C. acceptance was not automatic if political considerations required further amendments to price levels.

Selling Prices

Prices were prescribed by Government for produce sold by the Marketing Boards on the domestic market to millers, vegetable oil expressors, food processing industries, spinners, butchers, and in the case of wholemilk directly to the public. Although the Ministry of Agriculture was responsible for steering selling price proposals through the M.E.C.C. decision making process up to cabinet level, this was done in close consultation with the Ministry of Trade and Commerce which was responsible for retail pricing for processed products (except milk).

B DEVELOPMENTS IN AGRICULTURE PRIOR TO 1970

i) Introduction

Unlike most African countries Zimbabwe has a well diversified agricultural base and, with few exceptions, is self sufficient in the production of food and other agricultural commodities in normal rainfall years. This situation has not always prevailed and it is pertinent to give a brief historical background to state intervention in agriculture and the direction of policy before 1970. 8

Four major events determined the course of agricultural development during the period from the turn of the century to 1970. The first was the world wide economic depression which started in 1929 which brought about government intervention in the marketing of some major commodities because of low prices which threatened the economic viability of producing these commodities. The second major event was the economic boom and industrial development which followed the second world war and continued into the 1950's. This event caused rapid population growth in urban centres which had the effect of greatly increasing the demand for agricultural products. The third event was the major advances made in agricultural research in the

1950's and 1960's which brought about great improvements in agricultural productivity. The final event was the unilateral declaration of independence by the Smith regime in 1965, which resulted in economic sanctions being imposed on Zimbabwe and led to a diversification of agricultural production.

ii) Goverment Interventions in Agricultural Marketing and Pricing During the Period 1931 - 1970

Direct government intervention in agricultural marketing first occured in 1931. The principal food commodity, maize, was marketed by farmers through cooperatives up to this time. However low export realisations stemming from the world wide economic depression seriously undermined the financial viability of the maize industry and the government of the day established the Maize Control Board to stabilise the industry. The object was to improve returns to maize producers by stabilising prices through higher domestic selling prices and through the centralised disposal of exportable surpluses. However the new pricing system discriminated against peasant producers.9 After the second world war the country went through a period of deficit production. A maize price agreement between the government and the R.N.F.U. was implemented, and the price was fixed according to a basic price with annual adjustments made on the basis of changes in a production cost index. This cost plus pricing system together with the introduction of high yielding maize varieties during the 1950's culminated in overproduction by the end of that decade with surpluses being exported at a loss. The pricing agreement was dispensed with in 1962 and since then maize prices have been set by government in consultation with the relevant marketing boards and maize producer representatives. 10

The Cold Storage Commission was established in 1937 to guarantee a market and prices for beef cattle production. Prior to this world beef markets had slumped in 1922 and again in 1930 and created oversupply conditions with consequential subeconomic prices for cattle producers. The Cold Storage Commission was successful in stabilising the domestic market and creating conditions for steady growth of the industry.11 After the second world war urban demand for beef grew very rapidly as the economy boomed and far exceeded beef supplies. Beef prices were buoyant and virtually doubled during this period which prompted a rapid expansion in the commercial herd. By the end of the 1950's beef supplies satisfied domestic demand and surpluses were available for export.12 During this decade a system of guaranteed minimum producer prices, averaged out over all grades and payable by the C.S.C., operated. These prices were derived from long term cattle price agreements between the Federal Government and the R.N.F.U. In terms of these agreements the risks associated with profits and losses of all beef exports were expected to be borne by producers, but in practice, because of poor accounting procedures, this provision was not implemented. Government also controlled wholesale prices but not retail prices. Anomolies in wholesale price setting resulted in consumers of low grade meats subsidising consumers of top grade meats. After rapid growth during the 1930's the communal cattle herd remained fairly static

in size during the 1940's and 1950's

The Dairy Marketing Board was established in 1952. The main objectives in doing this was to provide centralised facilities for the intake, processing and distribution of milk and dairy products and to equate milk supplies to consumer demand for milk products. Prior to 1952 milk and dairy products had been marketed through cooperatives. However these had failed to respond satisfactorily to the rapidly growing urban demand for dairy products during the economic boom and the growth of the white urban population following the second world war. Dairy farmers were offered guaranteed incentive prices which were based on production cost surveys plus an allowance for a profit margin. Producer prices were adjusted periodically on the basis of an index of input prices.14 During the period of deficit production the government was prepared to subsidise the industry and followed a cheap food policy by not allowing consumer prices to adjust at the same rate as producer prices.15 However this policy ran into difficulties when surplus production was achieved by the end of the 1950's as economically viable export opportunities were limited. With the threat of open ended subsidy payments government decided to limit the price guarantee to the volume of milk required to meet domestic demand and surplus production was priced at net realisation levels. This pricing policy was subsequently changed and producer prices for milk were calculated as a blend of the volume of milk sold internally at prescribed prices and realisations from sales of milk for manufacturing uses.16

The oilseeds processing industry started in Zimbabwe in 1915 with the establishment of an expressing plant to process groundnuts into soap and oilseed cake for livestock feeding. The industry developed fairly rapidly and self sufficiency in most processed oilseed products was soon achieved. During the 1940's there was intense competition between several oilseed expressing companies for supplies of groundnuts which was the main oilseed crop. Supplies were obtained through sales contracts with groundnut producers, most of whom were communal farmers. The instability of the market led to government intervention and groundnuts was declared a statutorily controlled product in 1952. 17

Other notable government interventions in agriculture prior to the 1970's include the formation of the Agricultural Marketing Authority in 1967 (see above). The youngest agricultural marketing parastatal, the Cotton Marketing Board, was established in 1969. This was in response to the phenomenal growth of the cotton industry during the 1960's when it became imperative to establish cotton ginneries which involved large capital outlays in the main cotton growing areas, as well as catering for the need for guaranteed markets and prices especially for the large number of peasant farmers producing this crop. Prior to this cotton marketing had been controlled since 1936, initially by the Cotton Research and Industry Board, and then by the Grain Marketing Board.18

By 1970 government had statutorily controlled several major agricultural commodities and prices were prescribed annually for maize, sorghum (controlled in 1950), cotton, groundnuts, soyabeans(controlled in 1969), beef, and milk. Notable exceptions were tobacco, sugar, horticultural products, wheat(controlled in 1970), coffee (controlled in 1972), sunflowers (controlled in 1983) and millet crops (which again became controlled commodities in 1984 after being controlled and decontrolled previously).

iii) Developments in Agriculture in the 1960's

a) Pre - 1965

Tobacco production gained prominence in this country after 1945 when U.S. dollar restrictions led Britain to source tobacco imports from sterling area countries. New tobacco growing areas were opened up as export markets expanded and by 1964 the industry had become large and sophisticated with well organised research facilities and marketing channels. Over 2071 farmers (out of a total of 6234 commercial farmers) were tobacco growers.19 Output of other cash crops such as cotton, sugar, and coffee was minimal in comparison as production of these commodities was in the initial phases of taking off. The growth of output of these commodities was mainly the result of much improved disease and pest control measures, the introduction of better varieties suited to growing conditions in Zimbabwe, and irrigation development especially in the Lowveld. 20

A relatively narrow agricultural base had developed by 1965 with a high degree of dependence on flue cured tobacco as the leading cash and foreign exchange earning commodity. To a much lesser extent beef and sugar were also foreign currency earners. Significant quantities of foreign currency was expended in importing agricultural inputs, foodstuffs, and textiles which amounted to over 24% of total merchandise imports in 1964.21 Items such as wheat, tea, and coffee were largely imported. Many agricultural inputs also had to be imported and these included such items as fertiliser, stockfeeds, packing materials and tractor implements which nowadays are to a large extent manufactured within the country. The country was largely self sufficient in edible oils and fats and had developed a relatively sophisticated oilseeds expressing industry based mainly on groundnut production. Livestock industies such as beef cattle ranching and dairying satisfied domestic requirements for livestock products. Cattle ranching, however, was mainly concentrated in the drier southern regions of the country and tended to be regarded as of secondary importance in the crop growing areas of the north. 22

b) Post - 1965

The application of economic sanctions on Zimbabwe in 1965 had a substantial impact on the commercial farming subsector, and the tobacco industry in particular as most external markets closed their doors to further imports of Zimbabwean tobacco. Because a large proportion of crop farmers were tobacco producers, and plummeting tobacco prices threatened the financial viability of their farms, it became imperative for these farmers to diversify

into alternative farm enterprises. From a national viewpoint it became essential to promote the production of other export crops to make up for the losses in export earnings stemming from the reduced tobacco output, and to implement a policy of import substitution for important food commodities such as wheat. Measures to foster the process of diversification included an agricultural diversification loan scheme which applied specifically to tobacco producers, the introduction of input subsidies for fertiliser and diesel and soft loans for irrigation development in 1966, and the payment of incentive prices for wheat. 23

The net effect of these diversification policies was that flue cured tobacco plantings, which had peaked at 103600 hectares in the 1963/64 growing season, had fallen to 41000 hectares by 1970. Winter wheat production grew from 1700 hectares in 1965 to 13600 hectares in 1970. Mainly because soyabeans is suited to growing in rotation to wheat, plantings to this crop increased from 400 hectares to 12000 hectares over the same period. Commercial maize plantings grew from 175800 hectares in 1965 to 248700 hectares in 1970.24 The beef cattle industry also underwent a radical change during this period in that many crop farmers in the tobacco producing areas of the country diversified into cattle production. For example, tobacco producers acquired 84000 head of cattle between 1966/7 and 1967/8.25 This process was assisted by large numbers of cattle having to be moved to the northern areas during the drought years of 1966 and 1968 which affected the grazing areas of the south particularly. By the end of the decade beef cattle production had become an important feature of farming systems practiced in the main cropping areas where output now rivalled that of the traditional producing areas in the south. 26

During the 1960's a rapid expansion also occured in cotton, coffee, and tea production. The phenomenal rate of growth in the production of these commodities was led by cotton where output increased from 1354 tonnes in 1961 to 151000 tonnes by 1969.27 A parallel development of the domestic textile industry assisted in expanding the cotton industry. By 1970 a much broader spectrum of agricultural commodities was being produced by the large scale commercial farm subsector.

Although diversification policies were not aimed at the communal farm subsector some development did take place and cotton was found to be suitable for promoting development. The crop was appropriate to peasant production in that little capital outlay is required, its drought tolerant qualities make it an ideal cash crop to grow in marginal rainfall regions where the majority of communal lands are situated, and market controls ensure a guaranteed income from sales. Communal farm production of cotton grew to slightly over a third of the total national cotton area and, because of lower yields, about 20 per cent of total cotton output by the 1970/71 cropping season.28 Much of this development took place in the Gokwe area in Midlands Province.

Several factors contributed to this subsector not generally adopting the other "ascending" crops (wheat and soyabeans) in the commercial farming subsector. These included an unsuitable agroecological environment for growing these crops in most communal areas, the generally small area cropped per communal farm with a heavy emphasis on maize and millet production, widespread poverty and the general lack of access to credit facilities, and the high capital outlay involved in irrigation development.29 Some communal production was undertaken on a large scale, however, by Tilcor (now A.R.D.A.) which was a parastatal set up with the express objective of promoting agricultural development in the communal lands.

C. AGRICULTURAL PRICING - 1970's

30

i) Pricing Policies prior to 1970

It is noteworthy that no formal agricultural pricing policy document was published during this period which set out government objectives for agriculture. However pricing policies for the various statutorily controlled agricultural commodities were always formulated generally around a number of key objectives. Foremost among these was the policy aim of achieving and maintaining self sufficieny in major food products such as maize, meat, and milk which were periodically in short supply. As industrial development took place after 1945 this policy objective was extended to satisfying the demand for agricultural raw materials from domestic agricultural based industries. Closely allied to the policy objective of production self sufficiency was the goal of maximising foreign exchange earnings from exports of commodities which were produced in quantities surplus to domestic requirements. Production for export was generally only encouraged when financially favourable export opportunities existed. However goverment was from time to time prepared to subsidise the production of a particular export commodity. These occasions occured when world prices temporarily fluctuated below economically viable levels and it was in the long run national interest to maintain production levels, or when priority had been placed on exports because of foreign exchange shortages (eg. during the U.D.I. era).

In times of deficit production price levels were initially set at incentive levels to encourage farmers to increase output to satisfy internal demand for particular strategic commodities, and once this was achieved, to expand production for export if this was economically viable. A system of producer price incentives together with other forms of assistance such as price and market controls and state funded research and extension activities served to expand the agricultural industry as a whole.

ii) Pricing Policies - 1970's

The key objectives of achieving and maintaining production self sufficiency of major agricultural commodities and maximising export earnings from any surplus production remained in effect during the 1970's. The pricing mechanism was also used to continue the policy of diversifying agricultural production which

had been initiated after 1965. Because of economic sanctions during this time stringent input price controls also operated which covered virtually the whole spectrum of agricultural inputs. Where inputs were not directly priced by government other controls such as restrictions on profit markup levels were applied. Also, a foreign exchange allocation system applied to all imports which included imported agricultural inputs. These measures had been introduced to avert possible price inflationary effects stemming from shortages of essential imported inputs for the industry. Thus an elaborate system of government controls over the pricing of agricultural inputs and commodities culminated in government interventions in all aspects of agricultural production during the 1970's.

31

iii) Controlled Commodity Price Levels in the 1970's

After a period of relatively static producer prices during the 1960's there were large increases in nominal prices for most of the controlled commodities during the 1970's and many of them more than doubled during the decade (see tables 1 - 6). The inflationary trend began when agricultural input prices rose sharply as a consequence of the oil crisis which created pressures for producer price increases. This was followed by the commodity price boom in 1975 and 1976 which significantly improved export realisations for those commodities which were exported. Large supplementary payments were made to producers of commodities which had been priced conservatively (eg.maize, cotton). After 1976 pressures for further price increases mounted as fertiliser subsidies were removed and input prices escalated which eroded production profitability. Also, as many farmers abandoned their farms due to the intensification of the war, political and economic pressures were created whereby incentive prices were offered to keep farmers on the land and to maintain production levels.

The effects of agricultural pricing on production levels is shown in charts 1 - 5 (see Appendix). Maize plantings in the commercial subsector had more than doubled from 146000 hectares in 1962/3 to 299000 hectares in 1971/2. By 1978/9 the area had reduced to 191000 hectares because of eroded profitability vis a vis other commodities and planting reductions due to the war. The area increased to 218000 hectares in the following season in response to a 40,5% increase in producer price which included an early delivery bonus. The object of the large price increase was to reverse the output decline which, together with a drought in the previous season, had reduced maize stocks to a few months supply. However a midseason drought partly frustrated the attempt to boost maize stocks and a further large price increase was announced for the following season.

After rapid growth in the 1960's cotton output steadied and commercial plantings fluctuated between 60000 and 80000 hectares during the 1970's. Communal cotton production grew rapidly from 29000 hectares in 1970/1 to 78000 hectares in 1973/4 and then fluctuated down to 34000 hectares by 1979/80 mainly due to the war. In nominal terms cotton prices increased by 129% over the

decade. The area planted to winter wheat increased from 14000 hectares in 1970 to 45000 hectares in 1978. This was in response to price increases up to 1977 and soft irrigation loans to encourage irrigation development. Self sufficiency was achieved in wheat production in 1976. As export opportunities for this commodity were limited, and as stocks began to grow, it was realised that further expansion would have to be curtailed. Thus in 1978 wheat prices were reduced and this had the effect of reducing plantings to 33000 hectares by the end of the decade. The area planted to soyabeans dropped from 12000 hectares in 1969/70 to 7500 hectares in 1970/71 and then increased more than fivefold to 41000 hectares by the end of the decade. Soyabean prices fluctuated during the period, peaking during the commodity price boom of 1974/75 then falling by nearly 19 per cent in nominal terms the next season, and remained static at that level for three seasons. Prices rose sharply after the 1977/78 season. Despite the swings in soyabean price levels during the decade the crop had become a major commodity by 1980.

Producer prices for beef cattle were geared towards expansion of the industry and more than doubled in the period 1970 to 1980. In the early 1970's the Cold Storage Commission purchased cattle at prices based on a chiller grading system. The system relied more on visual grading than carcase measurement which proved unsatisfactory. A new carcase classification system was introduced in 1977 based on carcase measurement which required the introduction of a revised producer price schedule. Prices were set for different grades according to age, flesh development, and fat cover. Despite price incentives which included the introduction of farm gate pricing in 1979 (the C.S.C now reimbursed farmers for the cost of transporting cattle to C.S.C. abattoirs) the beef cattle industry seriously deteriorated towards the end of the 1970's because of the disruptive effects of the war. Veterinary services virtually collapsed and led to the loss of over one million head of cattle. The dairy industry remained relatively stable during most of the decade with the number of cows in milk fluctuating between 47000 and 51000 head. In 1979, however, the number of cows sharply reduced to just under 44000 which was the result of several producers selling up and leaving the industry. Average prices in nominal terms and including premium payments rose from 6,24 cents per kg in 1970 to 15,54 cents per kg in 1980.

Marketing board selling prices for the major controlled commodities generally tended not to be fixed in direct relationship to changes in producer prices during the 1970's. For example the local selling price for A grade maize was static for fifteen years from 1960 to 1974 and only after that year was raised to reflect world price trends and to pay for increased producer prices. Over the decade producer prices rose at a faster rate than selling prices with the former increasing by 62 % and the latter by 51 %. Except for 1974, selling prices were fixed at a higher level than producer prices. Narrow producer-selling price differentials and relatively poor export realisations resulted in large subsidies being paid to the industry towards

the end of the decade (see Table 7). Expected export realisations from cotton were a very important component in setting producer prices because of the very high proportion of total output produced for external markets. Producer pricing tended to be conservative and this is evident from preplanting price levels which were usually below final prices fixed for a particular year. Increments to the final price were paid in the form of supplementary payments to producers. Selling prices to local spinners fluctuated in response to movements in international lint prices but, except for the period 1972 - 1974, were set at a slightly lower level than export prices. Proceeds from the sale of cotton seed were used to balance the C.M.B. trading accounts. When trading deficits did occur they were generally met from funds from a stabilisation reserve and only in a few years was government support required. Selling prices for wheat and soyabeans fluctuated during the period at above and below producer prices. Trading accounts for these commodities regularly included an element of subsidy which varied in size in accordance with governments desire to reduce costs to consumers.

As a reflection of cheap food policies average wholesale prices for beef were consistently below producer prices over the decade and below average export prices until 1976. Up to 1974 these price differentials were supported by the appropriation of monies from a stabilisation reserve fund resulting from previous trading profits and no subsidies were required. The industry had to be subsidised when export prices dropped below producer prices after 1976 and subsidies escalated as the price differentials widened. There was a rising cost to government of keeping consumer prices for milk down towards the end of the 1970's. In the last few years producer prices and distribution costs increased considerably. Government was reluctant to adjust the selling prices for milk upwards in 1977 and 1978 and subsidies rapidly escalated as the gap between producer prices and consumer prices widened.

When consideration is made of price support measures by individual commodity (see Table 7) during the U.D.I. era the lion's share of government financial support went to tobacco producers who received a total of over $133 million spread over a period from 1965 to 1977. The beef cattle industry received just over $60 million between 1976 and 1980. Price support payments to the maize industry amounted to just under $31 million over the period, of which $27 million was paid out between 1978 and 1980. The dairy industry received about $11 million in the four years preceding 1980 and the cotton industry $7 million in the cropping seasons 1969/70, 1978/79 and 1979/80. Other commodities such as wheat, sorghum, and oilseed crops received minor payments over the period. Drought relief payments to farmers in drought years amounted to over $31 million and fertiliser subsidies of about $19 million were paid during the period 1971 to 1975. Thus government financial support to agriculture was considerable and escalated towards the end of the 1970's chiefly due to the greater impact that the war was having on agricultural productivity and on pricing decisions.

D AGRICULTURAL DEVELOPMENTS IN THE 1980's

The advent of independence in 1980 ushered in an era of change in agricultural policy formulation. With different political priorities to those of previous regimes the new government rapidly embarked on a path of redressing inequities which had arisen from policies of racial descrimination. Thus during the first few years there was a preoccupation in removing legal obstacles to access by previously disadvantaged races to social and economic benefits. Blacks were advanced into positions of authority and responsibility in all organisations, and especially in the civil service. In agriculture the process of change took several forms. There was a shift of agricultural policy focus from the large scale commercial farming subsector to the communal farming subsector. While it was not government policy to prejudice productivity in the latter subsector agricultural policies were formulated around the overall objective of developing the communal areas. The major issues involved were land distribution, marketing infrastructure, a redirection of research and extension activities to mainly benefit communal farmers, and representation of small scale farmers in the agro-political bargaining process. These have had either direct or indirect influences on agricultural pricing. 33

By 1986 government had purchased with donor aid assistance over 3,1 million hectares of land from large scale commercial farmers for resettlement purposes.34 The aim was not simply to redress the imbalance of land distribution between the farming subsectors but also to ease the population pressures on land in the more densely populated communal areas. Initially the resettlement programme was overambitious in that the first national development plan set a target of resettling 162000 communal families in three years.35 The resettlement programme was designed to ensure that each farmer was allocated enough arable land to grow crops suited to the agro-ecological environment which would provide an income equivalent to not less than the prevailing minimum wage for agricultural workers. The existing infrastructure for resettlement was unable to cope with the envisaged target in the plan. Moreover the resettlement process was hindered by the three year drought period from 1982 to 1984 when crop failures occured at many of the schemes. This necessitated government having to extend financial assistance, in the form of drought relief, to resettled farmers for longer periods than was originally intended.

Since that time the resettlement programme has proceeded at a more moderate and orderly pace and the resettlement farming subsector is developing into a major contributor to the total national output of many commodities.36 However in designing the resettlement programme target yield levels were not set at levels which prevailed prior to resettlement and therefore land use productivity levels have been lower.37 There is no doubt that the resettlement programme has had an impact on the large scale commercial farming subsector. The number of farmers in this

subsector has dropped from over six thousand in 1975 to less than four and a half thousand in 1988.38 Much of the decrease was caused by farmers abandoning their farms during the war which was purchased by government for resettlement after 1980. Other farms for resettlement have been purchased on a "willing buyer, willing seller" basis since then. This development has contributed to the fall in the number of agricultural workers employed on commercial farms and to the decline in the size of the large scale commercial beef cattle herd.39

From the outset government has pursued a programme of providing communal farmers with ready access to parastatal marketing facilities. The objective is that every communal farmer in the main cropping areas should ultimately not have to travel more than 60 km to market those products being sold to the parastatals.40 The lack of adequate marketing infrastructure in the communal areas is seen as a major obstacle to the development of these areas.41 Because of high transport costs communal farmers have been reluctant to transport their produce to marketing depots which had been sited to serve the large scale commercial farming subsector. Also the system whereby the parastatals had employed buying agents to purchase their commodities in the communal areas was unpopular in that many communal farmers claim to have been cheated either in the weighing or the grading of the produce delivered.42 They were therefore generally reluctant to sell their products to the parastatals. The need to develop marketing infrastructure in the communal areas was also spurred by the extension of credit facilities to communal and resettlement farmers by the Agricultural Finance Corporation. The number of communal farmers receiving loans grew from 18000 in 1980/81 to 77384 in 1986/87.43 To obtain credit farmers had to register with the appropriate marketing parastatal and to commit themselves to selling their produce through the parastatal so that a stoporder system could be applied to recover A.F.C.loans. Since 1980 there has been a very significant increase in the number of farmers registered with the two parastatals marketing crop products. For example, the number of farmers registered with the G.M.B. from the small farm sector increased from 28119 in 1980 to 164480 in 1983.44 The installation of depots and collection points in the communal areas and the involvement of the boards in the transport of communal farmers produce in some years has created problems by significantly increasing both capital and recurrent expenditures.45 Although the criteria used in siting these marketing outlets require that the locality should already be a significant producer of particular commodities with a potential to increase output, in practice low throughput in some cases resulted in non-viability. The total operating costs of the G.M.B. increased nearly seven-fold from $ 18,2 million in 1981 to $127,8 million in 1987, partly as the result of the significant expansion of the Board's operations.46 These developments have contributed to the substantial operating deficits that have accrued in the financial accounts of the boards, and have undoubtedly indirectly influenced the levels at which producer prices are set.

Another development in the 1980's has been a reorientation of government research and extension activities away from commercial farm production to communal farm production. The object has been to greatly improve productivity in the communal lands by developing appropriate production technologies.47 As a means of disseminating the new technologies, progress has been made in increasing the size of the agricultural extension branch of government (Agritex) through additional training facilities and training programmes. These measures together with the provision of credit facilities to purchase agricultural inputs should in the long term serve to improve productivity in the communal lands. Concommitant with governments redirection of research efforts has been the development of private research facilities. This has been mainly at the instigation of commercial farmers although firms supplying agricultural inputs have also contributed to private research. While the large scale commercial farm subsector still makes substantial grants to government research through the Agricultural Research Council, commercial farmers felt that the change in government policy would undermine efforts to improve productivity in their own subsector. Thus private research facilities have been established to cater for commercial farming research requirements, mainly for crop commodities although recently facilities have been acquired for livestock research. In addition the various commodity associations which represent commercial farmer interests for specific commodities have employed their own extension personnel to disseminate new production techniques that are developed through research. Because of these measures gains in productivity in commercial crop and livestock production have continued in the 1980's.

Government has implemented a policy of equal representation from all the farming subsectors when farmers are involved in discussions concerning the agricultural sector. Whereas prior to 1980 producer representatives on the boards of the marketing parastatals and the policy committees of the Agricultural Marketing Authority were large scale commercial farmers this has now been extended to include members from all farming groups. The C.F.U. (previously the R.N.F.U.) has evolved since its inception in 1942 under the Farmers Licencing and Levying Act into a highly sophisticated lobbying organisation with extensive resources to put forward its views on agriculture. Through the legal requirement that all large scale commercial farmers purchase a annual licence to carry out farming operations all of these farmers automatically become members of the union. Licence fees and levies on commodity sales are paid to the union and therefore the financial support of the union and its affiliated commodity associations is guaranteed. The other two farming unions are the National Farmers Association of Zimbabwe (N.F.A.Z.) which represents communal and resettlement farmer interests and the Zimbabwe National Farmers Union (Z.N.F.U.). which represents small scale commercial farmer interests. The N.F.A.Z., formed in 1980, has only evolved into a fully fledged national union during

48

the 1980's. It evolved from the Master Farmers Association of Victoria Province whose membership was made up of communal farmers with a master farmers training certificate. With government encouragement the union has now assumed a national role in its representation of communal farmers. Although its membership has now spread to all provinces this comprises only some 200000 out of a potential of 700000 to 800000 communal farmers. Despite its lack of resources the N.F.A.Z. has achieved some authority in representing the views of communal farmers on agricultural matters. The Z.N.F.U. originates from the African Farmers Union (formed in 1942), which in turn evolved from the Bantu Farmers Congress which was formed in 1925. This union represents approximately 9000 small scale commercial farmers from the previous African Purchase Areas.49

Government has frequently stated that it would like to see one union representing all categories of farmers. This event has so far not occured. The main barrier to amalgamation of the unions is the widely divergent interests that the three unions individually represent. However there has been a movement towards developing a common approach between the unions in their dealings with government. The unions formed the "joint presidents committee" in 1985 which meets every month to discuss matters of mutual interest and to formulate common policies. The committee is chaired by each union's president on a rotational basis through the year. An example of the unified approach to issues which affect the agricultural sector is the change in procedure of conducting annual price negotiations for controlled commodities. Prior to 1980 discussions on pricing matters involved representatives of the large scale commercial farmers only and their union had considerable influence in pricing decisions. After 1980 this situation changed and the other two unions were brought in to participate in pricing discussions. However the procedure was cumbersome in that three separate and sometimes conflicting views on pricing policies were presented to government. In order to streamline the approach and facilitate discussions it was decided to present joint submissions on prices to government. The procedure for the past few years has been for the unions to meet before formal pricing discussions with government begin, to formulate common strategies for use in price negotiations. Each union is given responsibility for preparing the price submissions for commodities in which it has a special interest. These are then vetted by the other two unions so that all views on the pricing of a particular commodity are represented in the final submission to government. The final submission contains sets of production costings for all three types of farming systems. This procedure has now developed to the extent that government is made aware of of the various issues that affect all categories of farmers and can formulate their agricultural pricing policies accordingly.

50

E. AGRICULTURAL PRICES IN THE 1980's

i) 1980/81 Growing Season

One of the most pressing problems confronting the new government after independence in 1980 was the state of the agricultural industry and the measures to be taken to rehabilitate the sector. Farming activities in both the commercial and communal areas had been badly disrupted by the war and agricultural output had declined after the war intensified in the mid - 1970's. Although the new government as a matter of policy was committed to advancing productivity in the communal areas, at the same time it also wanted to prevent any possible collapse of commercial production through an exodus of farmers from the land, and to stimulate production from this subsector which would be beneficial for the economy as a whole. Commercial farmers had been the main supporters of the previous government and therefore were suspicious of the new government's intentions for the subsector. In order to allay these fears and to instil a degree of confidence in the new government a white minister, who was formerly a president of the R.N.F.U., was appointed to head the Ministry of Agriculture. The other measure taken was to announce a package of preplanting prices for the 1980/81 season in which there were large increases in price levels for some of the major commodities.

While political objectives did influence agricultural pricing decisions that year there were other very important considerations. Of major importance was the need to rebuild stocks of the principal food commodity, maize. The decline in commercial maize plantings during the latter half of the 1970's had been reversed the previous season (1979/80) due to a much higher price which included an early delivery bonus being offered to producers. A mid-season drought, however, reduced yields and frustrated the attempt through the price mechanism to increase strategic maize reserves up to desired levels. It was considered imperative, therefore, to offer further price incentives to increase commercial maize output and to encourage communal farmers to sell surplus maize through the marketing parastatal. Moreover the provision of production incentives through price assumed greater importance at around this time because of the discontinuation of financial drought relief assistance. Previously commercial farmers were able to claim financial compensation from government for losses stemming from crop failures due to drought. Assistance to communal farmers in drought periods had been limited to the provision of food. In a change of policy the new government decided there was no special reason for limiting financial assistance to one farming subsector and considerable administrative difficulties would be encountered in extending the assistance to all subsectors. The new policy meant that the financial risk of producing drought susceptible crops in the commercial subsector was greatly increased.

A preplanting price for A grade maize was announced at $120 per tonne for the 1980/81 growing season. This represented a 41 % nominal increase over the 1979/80 price and nearly 100 % over the price of $60,50 which applied in the 1978/79 season. Farmers responded positively to the announcement and with crop prices skewed in favour of maize, commercial plantings to the crop

increased by nearly 32 %. As the result of good rains a record harvest was achieved and deliveries from the commercial subsector exceeded 1.65 million tonnes. There was also a good response from the communal subsector and 363000 tonnes was delivered to the Grain Marketing Board. The much greater volume of deliveries affected the operating efficiency of the Board who were in the initial stages of implementing the new policy of extending marketing facilities to the communal areas. The Board was also instructed to involve itself in the transport of communal produce to the depots which added to its difficulties and operating costs. Board handling costs soared as a consequence and also because of the interest payments on the very large sums of money borrowed to finance stocks of maize and other commodities.

The very favourable maize price reduced plantings to other principal summer crops (cotton, soyabeans) in the commercial subsector because of the comparatively moderate price increases announced for these alternative commodities. Despite this there was a substantial increase in area put to cotton in the communal lands which expanded from 24000 hectares in 1979/80 to 72000 hectares the following year, mainly because the disruptive effects of the war on plantings had ended. The substantial price award to maize producers also resulted in large price increases for livestock commodities because maize is a principal livestock feed.

ii) 1981/82 Growing Season

There was a significant increase in consumer demand for food products in the early post independence period. Minimum wages had been introduced in 1979 and had been set at $20 per month for the lowest paid employment categories. As many low paid workers were receiving wages in excess of this amount the measure was really a token attempt to improve incomes for this income group. The new government was deeply committed to raising living standards for low income groups and soon raised the minimum wage by 50% to $30 per month in addition to radically changing labour legislation on employment conditions and labour retrenchment. Minimum wages for industrial workers which had been set at higher levels were also adjusted upwards. The minimum wage for the lowest wage categories was again increased early in 1982 by 66% to $50 per month with similar increases for other categories of workers.51 The net effect of these measures was to greatly improve real incomes for low income groups in urban areas and in formal employment in the rural areas. Further, real incomes in the communal farm subsector improved in 1981 as crops were reaped and sold at enhanced prices.

Measures to improve real incomes were augmented by the maintenance of cheap food policies. Consumer prices for the main food products in some cases did not change or changed minimally in comparison to upward adjustments in producer prices (see Tables in the Appendix). The discrepancy in prices was most noticeable for maize with the A grade producer price set at $120 per tonne and prices for high quality maize meal set at just over

$80 per tonne. Some farmers took advantage of this situation by not retaining maize for on-farm use and selling it at the higher price and buying back milled maize at the lower price. Transport costs were offset by the price differential and savings on milling costs and made this venture profitable for these farmers.52 With greatly improved real incomes in the low income groups and low food prices the demand for meat, bread, dairy products, and vegetable oil products soared and shortages of some food products started to develop as early as 1981.

The agricultural pricing system for controlled commodities was changed in 1981, and the announcement of preplanting prices for these commodities was discontinued. Government introduced a new system whereby a pricing policy statement in respect of production requirements would be announced prior to the growing season each year without specifying what price levels would be. Only in special cases would preplanting prices be announced for an individual commodity when circumstances warranted a clear indication to producers of government production intentions for the commodity. The system of price negotiations between government representatives and producers was also changed. Whereas previously negotiations would take place at different times of the year depending on board intake periods and whether preplanting or final prices were being considered. A consolidated approach was introduced where negotiations for all the statutorily controlled commodities (except coffee) takes place after summer crops have been planted. The package of final prices is announced by the Minister sometime during April - May each year. In adopting this policy Government sought to reduce the risk of committing itself to certain price levels without any indication of what farmers planting intentions were, with the possible outcome of open ended government subsidies for particular commodities.

Agricultural pricing for the 1981/82 growing season was influenced by two key factors, marketing board operating deficits and the drought. A very large maize trading account deficit had developed from the record intake of this crop of roughly two million tonnes during the previous season. It was obvious with over two years of domestic maize requirements in reserve and limited export opportunities for this commodity that farmers should be encouraged to diversify out of maize production. An inter-commodity pricing imbalance had resulted from the very large maize price hike in the previous season. In his first pricing policy statement in lieu of preplanting price announcements, the Minister of Agriculture indicated that there was no justification for a further maize price increase in the 1981/82 growing season, and that farmers would be encouraged to diversify into other crops through enhanced prices.

Farmers did not respond to the announcement as expected. Even with a rise in input costs from the previous year maize production still remained highly profitable. Although plantings in the large scale commercial subsector did decrease the contraction in area was such that had normal rains prevailed

difficulties being experienced by the Grain Marketing Board. Cotton plantings continued to decline but soyabean growers responded positively to the policy statement and the soyabean area increased by 60 %.
By the time final prices for the season were announced drought conditions were apparant. Nevertheless the A grade maize price was held static at $120 per tonne while other commodity prices were increased to promote a swing out of maize production into more drought resistant crops in the following season. This was especially so in the case of cotton where some of the commercial area had been lost to maize production for two successive seasons and cotton prices were increased by over 26 % to reverse the trend. A 17,6 % increase was awarded in soyabean prices. Excepting maize, price increases were granted for all controlled commodities.

iii) 1982/83 Growing Season

Price decisions for 1982/83 were influenced by shortages of some major food products (eg.vegetable oils, bread, milk) and a glut of others (eg.maize, beef) on the domestic market, large trading deficits in the financial accounts of the marketing boards, and the effects of drought on agricultural production and marketing. Shortages of vegetable oil products were serious and steps were taken to correct this situation. Prior to the start of the growing season a preplanting price increase of 30 % was announced for soyabeans to encourage increased output of this commodity. In an attempt to gain greater control over oilseed production sunflowers was declared a controlled commodity and prices were set at $5 per tonne less than soyabean prices. This measure was partly in response to a recommendation of the Commission of Enquiry into Agriculture that sunflower marketing become statutorily controlled. This measure would serve to promote development in the communal areas, where the crop was mainly grown, by providing marketing facilities and guaranteed prices.

Although government wished to promote oilseed crop and drought resistant crop production these were not major considerations in decisions relating to cotton prices which were held static. Of overriding importance was the unfavourable export realisations being received for lint in external markets (see chart 2) and the accumulated deficit on the cotton trading account. There was no increase in maize prices because of a maize trading account deficit caused by still considerable stock levels and limited export opportunities. Groundnut prices remained static and it appeared that government placed little emphasis on promoting the crop. Sorghum prices were moved up to parity with maize prices to encourage production of this drought tolerant crop.

Shortages of milk products necessitated imports of milk powder and butter oil through an E.E.C. funded aid programme. As a consequence government awarded a further 20 % increase in producer prices (representing an overall 48 % in two years) for milk to promote growth in the industry. Although the D.M.B.

was overridden by the objective of regaining production self sufficiency when price levels were set. The drought seriously affected the beef cattle industry and Cold Storage Commission slaughter and cold room storage facilities were unable to cope with the very high slaughter levels as farmers destocked. There was little scope for exports because of oversupply conditions on world markets, and the glut of meat on the domestic market had to be sold to consumers at discount prices to encourage consumption. The C.S.C. trading account deficit increased substantially and as a consequence no producer price increase was awarded.

iv) 1983/84 Growing Season

The continuing drought conditions and their adverse effects on the financial viability of agricultural production dominated pricing decisions for the 1983/84 season. Maize stocks had fallen to a low level because of abnormally high demand during the preceding two years. Producer confidence in growing maize was at a low ebb because of crop failures experienced over this period. Government therefore announced a guaranteed minimum preplanting price of $140 for A grade maize and $287 for B grade soyabeans to boost production of these commodities. By the time decisions were made on final prices for the season it was evident that drought conditions would prevail for the third successive year. While maize and soyabean prices were held at preplanting levels, prices of all the other controlled commodities were increased by between 10 - 15 %. Government also declared the two main millet crops (mhunga and rapoko) statutorily controlled crops from the 1st April 1984. The object of this action was to promote development in the drier regions of the country by offering price and marketing incentives for drought tolerant crops as alternatives to maize. These areas are not agro-ecologically suited to maize production and crop failures due to drought are frequent. Nonetheless the crop is increasingly being grown because of the strong local preference for maize over small grain crops.53

Although drought was the dominant factor influencing pricing decisions significant input price increases had occured and average price inflation had risen to over 15 % per annum thereby reducing the financial viability of farm production. In 1983 government took firm action to reduce the trading losses of the marketing boards by raising both selling prices and consumer prices for major food commodities. This action had the effect of dampening consumer demand for milk, meat, and vegetable oil products, especially among the lower income groups. The new policy affected all the main livestock industries (beef cattle, dairy, pig, and poultry production) as there were very large increases in stockfeed prices when prices for basic ingredients like maize, cottonseed meal, and soyabean meal were adjusted upwards.

v) 1984/85 Growing Season

Maize stocks had dwindled to well below annual consumption

intake for the 1983/84 crop and imports would therefore be necessary to make up the shortfall. The maize trading account was still in deficit although this had halved because of the depletion of stocks. Government therefore took action to stimulate maize production in the 1984/85 growing season and to reverse the apparent downward trend in plantings to this crop in the large scale commercial subsector. A preplanting price of $180 per tonne for A grade maize was announced. A feature which later influenced decisions on final 1984/84 maize prices was the much larger than expected maize intake from communal farmers for the 1983/84 growing season which had reduced previously envisaged import requirements. It was obvious that this farming subsector was growing in prominence in supplying the country's maize requirements.

Commercial maize plantings increased marginally by 5% to 200000 hectares in response to the preplanting price as farmers, after three seasons of drought, were reluctant to increase production. Commercial plantings to drought tolerant sorghum, on the other hand, nearly doubled. The drought broke this season and good yields were expected for the summer crops in all the farming subsectors. A large maize intake was forecast by the time final prices were fixed and the Grain Marketing Board was again faced with the problem of financing large maize stockpiles. The A grade maize price was confirmed at $180 per tonne and all other crop prices were increased when final prices were announced. Groundnut prices rose by 50% in an effort to stimulate interest in this crop. Several years of low prices in relation to other crops had reduced groundnut plantings. Sorghum prices were adjusted upwards to parity with maize prices while other crop prices were raised by between 10 - 20%. Milk prices were increased by 7.5 % but beef cattle prices remained static. The C.S.C. trading deficit was a major factor in arriving at the latter decision even though beef shortages were already becoming apparent (see Table 7).

vi) 1985/86 Growing Year

Normal rains prevailed during the 1985/86 summer crop growing period and by the time final prices were decided another large grain intake was anticipated. Communal farmers had delivered an unprecedented 819000 tonnes of maize to the Grain Marketing Board the previous season and total deliveries had amounted to over 1,8 million tonnes. Exports of maize had been just over half of the half million tonnes originally predicted and average export realisations had been lower than the domestic selling price.54 The sorghum price parity with maize resulted in many commercial farmers growing this crop and total deliveries approximated to four years of domestic consumption requirements. Deliveries of millet crops, almost exclusively produced by small scale farmers, greatly exceeded expectations and with domestic demand at less than 1000 tonnes per annum and little scope for exports the Board held large unsaleable stocks of these commodities. With high grain stocks the Grain Marketing Board deficit had more than doubled to $46 million.

As a consequence all summer grain crop prices were held static while other crop prices were moved upwards to encourage diversification. Emphasis was placed on oilseed production and export potential. The beef cattle price schedule was increased by 15 % in an effort to boost output and to promote an increase in the size of the large scale commercial breeding herd which had declined significantly since the 1982 - 84 drought period. Seasonal shortages of beef had developed and the Cold Storage Commission was experiencing difficulties in offpeak months because of a low throughput of slaughter animals. In addition government wanted to encourage the industry because negotiations had been entered into to secure an export sales contract of 8100 tonnes of deboned beef to the E.E.C. under the Lome Convention which grants favourable tariff terms to member countries (ie a rebate of 90% of import levies payable to the Community is granted).55 Exports to this market commenced in October 1985 but the C.S.C was not able to fully meet the quota because of the beef shortage.

No price increase was granted for milk. The dairy industry had responded very favourably to incentive pricing earlier in the decade and the situation had been reached where supply now threatened to outstrip demand. Another factor which influenced this decision was that consumer price adjustments had lagged behind those for producers with the result that the Dairy Marketing Board was incurring a trading loss in excess of $1 million per week. Further, inefficiencies due to uneconomic expansion after 1980 and because of a high turnover of experienced staff added to the Boards operating costs and contributed to the deficit. The intention in the pricing decision was to hold producer prices static while raising consumer prices to correct the pricing imbalance.

vii) 1986/87 Growing Season

Normal rains the previous season had aggravated the summer grains stock position of the Grain Marketing Board and its trading deficit. Government therefore had to take steps to avoid a further increase in grain stockpiles and adopted a new pricing strategy towards these commodities. A preplanting price quota was announced for large scale commercial maize production. Producers would be allowed to deliver 1000 bags of maize plus the equivalent of 50% of their previous years maize deliveries at $180 per tonne for A grade maize, and any excess deliveries over this amount would be priced at $100 per tonne. Stocks of sorghum now exceeded five years of internal consumption requirements and therefore a preplanting price of $100 per tonne for A grade red sorghum was announced which represented a 44% decrease in price from the previous season. The reduction was to apply to all sorghum supplies from agroecological regions I,II, and III, while supplies from the other two regions would be priced at $180 per tonne (A grade). A similar strategy was adopted for millet crops where, for example, stocks of mhunga (bullrush millet) represented over 170 years of domestic consumption at prevailing

demand levels.

The net result of the new pricing policy was that large scale commercial maize plantings contracted considerably to approximately two thirds of the 1985/86 area. The impact of the sorghum price reduction on commercial sorghum plantings was even more dramatic and area reduced by nearly 80%. Another drought had become evident by the time final prices were fixed and the price quota on maize was waived and the full price was paid for all deliveries. The top grade cotton price was increased by over 9% to encourage the production of top quality cotton, oilseed crop prices were raised by between 13 - 20 %, and wheat prices by 10 %. Government made it clear in various policy statements that oilseed crop production would be promoted firstly to attain self-sufficiency, and then to take advantage of any favourable export opportunities for surpluses. Milk prices remained static for the third consecutive year as the oversupply position became more serious with excess supplies being converted to milk powder.

A 30 % increase in the beef price schedule was announced to stimulate beef supplies for local consumption and export. The large price increase was the result of several factors. Shortages of beef had led to significant rises in cattle prices on the open market. Many producers found it much more profitable to sell their cattle for slaughter through private abattoirs, rather than to the Cold Storage Commission whose price schedule was fixed, and therefore could not compete with prices being offered by private traders at cattle auctions. The Commission was undergoing severe financial difficulties which was adding to its trading account deficit, largely because of the reduced cattle intake through its slaughter facilities. In addition a black market for beef was developing because of shortages with many butchers ignoring government gazetted consumer prices for various beef cuts. Some were flouting meat inspection regulations and posing a health hazard to the public. Government was also concerned that the upswing of cattle sales on the open market threatened supplies of slaughter cattle to the C.S.C. for export. Exports of beef to the E.E.C. under the Lome Convention had commenced in October, 1985, and soon afterwards government introduced an export incentive of 30 cents per kg for top grade cattle over and above the C.S.C schedule prices to promote supplies of cattle of the desired quality for export. Despite these price incentives open market prices being offered to producers were still very competitive. As C.S.C. could not compete government placed severe restrictions on private abattoir activities and banned the sale of non - C.S.C. meat in main urban centres.

viii) 1987/88 Growing Season

Despite the drought of the previous season government did not announce any preplanting prices. Stock levels of grain commodities were adequate to cope with any low intake in the event of another drought. In its final pricing package for the previous season government had given a clear indication of its production intentions for the following season. Farmers responded

accordingly by not expanding the area put to summer grain crops and increasing plantings to oilseed crops and winter wheat. Good rains ensued and by the time final price were fixed good yields per hectare for the summer crops were expected.

The price for A grade maize was raised from $180 to $195 per tonne after three years of static maize prices. Cotton prices were increased by 6,2% which represented the lowest percentage increase in the 1987/88 pricing package. This action was mainly a reflection of the poor trading performance of the Cotton Marketing Board due to falling prices received for cotton lint exports, and because lint prices in domestic markets had not been adjusted upwards for three years. Percentage increases awarded to soyabeans, groundnuts, and sunflowers ranged between 9 - 11 %. This represented an increase in real terms as total production cost rises from the previous year were approximately 6%.57 The A grade red sorghum price was raised to $130 per tonne which was well below an economically viable level for large scale commercial production. The intention was to discourage production from this farming subsector which had been the main contributor to the build up of stock levels during the 1984 - 86 period. Millet prices remained static because of high stockpiles and low domestic demand for these commodities. Wheat prices were increased by just over 10 % to encourage a further expansion in wheat plantings.

The beef cattle price schedule was increased by 7,5 % to partly offset production cost increases and maintain the momentum of the improved economic viability of cattle production. In a move to counter the growing trading losses of the Cold Storage Commission on the domestic market wholesale beef prices were raised at the same time as the producer price announcement. This procedure was adopted to counter the growing tendency in the government decision making process of adjusting selling prices well after producer price changes with the consequence that the marketing boards incurred heavy trading losses in the intervening period because of the discrepancy between procurement costs and unchanged selling prices. The same procedure was not adopted for the crop commodities however.

The two major problems plaguing the dairy industry was the Dairy Marketing Board trading account deficit and growth in milk supplies. An imbalance between producer and consumer prices was the main contributing factor to the trading account position. The increase in milk output aggravated the deficit position in that the price discrepancy carried through to each extra litre produced. Dairy production, in common with beef cattle production, has a relatively inelastic short term supply response to price changes. In a departure from normal procedure government indicated that a formula should be derived between the D.M.B. and producers to resolve the problems of the industry. After several months of negotiations a two tier pricing system was recommended which was similar to the system that had operated in the early 1960's. The plan proposes a realignment of producer and consumer prices to take place over a five year period with a four cent and

eight cent per litre annual price adjustment to producer and consumer prices respectively. At the same time growth in output would be limited to an overall 5% per annum and constrained by the implementation of a price quota. Approximately 70% of the total intake representing the proportion sold directly to consumers received a producer price of 49 cents per litre initially, while the balance representing milk sold for industrial purposes received a producer price of 35 cents per litre. For individual dairy farmers, the quantity ratio in which payment is made at the respective price levels is established from each producers growth in output over the previous three years. For example, those with no growth over three years are paid at the higher price for all deliveries, while those exceeding an average of 5% growth per annum receive this price for only 70% of deliveries.

F. DISCUSSION OF AGRICULTURAL PRICING POLICIES DURING THE 1980's

The effects of agricultural pricing policies during the 1980's is outlined in this section :-

i) The volume and cost of financing stock levels, and trading account deficits and resulting subsidies have been key factors in setting producer prices for summer grain commodities. Maize supplies and therefore stock levels have fluctuated widely due to the marked variation in annual precipitation levels during the decade. Local selling prices have been influenced by consumer price levels and government cheap food policies which have aggravated Grain Marketing Board trading deficits. Export opportunities at prices which cover procurement and marketing board handling costs have generally been restricted to regional markets and exports to world markets were undertaken at substantial losses. Maize price levels in the second half of the decade have been set with the objective of securing adequate supplies to satisfy annual domestic demand and to maintain a contingency reserve of several months offtake. Any surplus to requirements has been exported although transport constraints have been a major factor in limiting maize exports on occasion. In the latter half of the decade steps were taken through the pricing mechanism to diversify the maize supply base from the previous heavy reliance on the large scale commercial farming subsector to a much broader supply spread from all subsectors. In adopting this policy government indicated that it does not want the national staple food commodity primarily sourced from one farming subsector. 58

An interesting feature which affects maize marketing and prices is the existance of two different marketing systems for this product. In Zone A areas the G.M.B. has a total monopsony on the purchase and sale of commodities for which it is responsible and only has a residual buying function in Zone B areas where these commodities are traded freely within zone boundaries. In Zone A areas prices are fixed whilst in Zone B areas they fluctuate according to changes in demand and supply. The existance of the two pricing systems affects incomes earned from drought

susceptible crops (eg maize) particularly, as volumes of output vary widely between seasons because of yield variations. In Zone A areas fixed prices and output fluctuations result in income instability and a higher degree of production risk for maize than in Zone B areas. 59

Prices rise when there are maize shortages in Zone B areas which compensates for lower output levels and results in greater income stability. In addition Zone B maize producers also enjoy a higher average level of prices for maize in the long run than their Zone A counterparts. For example, in 1988 maize was selling in Chivu for three times the G.M.B. price.60 Theoretically in times of surplus production in Zone B areas maize prices should fall to the point where supply and demand are equated. However because of the G.M.B.'s residual buying function in these areas prices fall to the level offered by the Board. Provided the Board has sufficient maize stocks for sale, upward movements in maize prices in a shortage situation are restrained by G.M.B. selling prices, as these represent the opportunity cost to paying prevailing prices arising from private trading in the communal areas. Thus G.M.B. purchasing and selling prices probably have a buffer effect in narrowing the price fluctuations that would occur in a free market situation.

During the 1982-84 drought period maize prices escalated in Zone B areas particularly affected by crop failures. Illegal maize trading did take place, with some zone B farmers transporting surplus maize across zone A areas to other zone B areas rather than selling directly to the G.M.B. The effects of the current Zone B pricing system on the levels of surplus maize formally marketed by communal farmers requires investigation. This is of importance because in planning national production targets there is a greater potential unreliability of supply from the communal farm subsector than the other subsectors. In times of shortages communal farmers will not deliver maize to the Board if better prices are received from private trading. Loan recovery systems which rely on stop orders placed on deliveries of produce to the Boards would be rendered ineffective if farmers decide to sell to private buyers at higher prices.

Incentive prices for the other summer grain commodities led to a large build up of stock levels by the mid - 1980's because of low internal demand and few favourable opportunities for exports. Recent price reductions for sorghum reflect governments intention to limit production to levels more consistent with the domestic demand for this product. Millet crop prices have remained static since 1984 in an attempt to reduce supply levels. Unless measures can be taken to significantly reverse the very low internal demand for these commodities oversupply problems will continue into the future. The very predominant preference for maize among consumers, however, militates against improving the demand for millet products. It is becoming increasingly apparant from these marketing limitations that the original government aim of controlling these commodities to promote development in the drier regions of the country has a strong prospect of failure

(unless research in food processing technology is successful in improving demand for these products in the near future). It may therefore become necessary to decontrol these crops to release the Board from the financial liabilities imposed by holding large unsaleable stocks.

ii) Because cotton is predominantly an export crop producer prices have been largely influenced by realisations in external markets. As in the case of the tobacco industry the removal of economic sanctions in 1980 markedly improved export prospects for cotton. Soon after independence the procedure whereby technical and broking services were provided by the Zimbabwe Cotton Corporation to the Cotton Marketing Board to enable it to market lint efficiently in local and external markets was discontinued and the latter institution took over these functions. World cotton prices fluctuated during the decade with export realisations remaining static early in the decade then rising sharply after 1982 and falling after 1985. After a large percentage increase in 1981 cotton producer prices remained static for two years and since then have been rising despite falling export realisations after the mid - 1980's (see Chart 2). Current policy is that because of the importance of cotton as a foreign currency earner, and also because in the long term losses are recouped when world prices rise, government is prepared to subsidise the industry when unfavourable prices are received for exports. When this situation occurs greater emphasis is placed on the economic viability of production, and producer prices may be increased in the face of falling world prices.

Local lint prices followed a similar price rise trend although at a lower rate of increase than producer prices up to 1985/86 and then remained static until 1988. In 1985 the local lint price was set at a level which covered procurement costs and board handling costs. Static prices resulted in the C.M.B. incurring substantial losses in lint trading on the domestic market as procurement costs and handling costs rose after 1985. Cotton farmers also felt that this policy prejudiced their potential earnings from cotton in that local textile industries were being supplied with underpriced lint. After prices nearly doubled in the first half of the decade cotton seed prices remained static up to 1988. These are set at levels well below lint prices as cotton seed is regarded as a by-product of lint production. The policy of using cotton seed realisations as a balancing item in the C.M.B. trading accounts appears not to have been applied after 1985.

iii) Much emphasis has been placed on oilseed crop production after vegetable oil shortages occured in the early part of the decade. Pricing policy since then has been primarily aimed at achieving vegetable oil self sufficiency, the promotion of oilseed crop production (especially groundnuts) for export, and to maintain economic viability in the agricultural sector by further promoting a diversification of crop production. Soyabeans are predominantly produced by large scale commercial farmers and recently the crop has been promoted by incentive pricing. Besides other objectives the policy was also aimed at reducing this

farming subsectors output of grain commodities as the volume of marketed grain from the other farming subsectors increased in the latter half of the decade by offering a financially attractive substitute crop. The success of this policy is evidenced by the large increase in soyabean plantings after the mid - 1980's as the commercial farm area put to grain crops contracted. Other important aspects to encouraging an increase in soyabean output have been the development of export markets within the Southern African region for soyabean products (especially soyabean meal), and import substitution advantages in that soyabean meal replaces fish meal in formulating feeds for the rapidly expanding poultry and pig meat industies.
After a period of declining output due to indifferent pricing groundnut production in the commercial farm subsector increased substantially after 1986 in response to incentive prices being offered for the commodity. Sales of groundnuts to the Grain Marketing Board from the communal farm subsector, however, have remained at very low levels, and this may have been caused by more attractive prices being received by growers within the communal areas. Government's increased interest in this crop stemmed from its drive to promote exports because of foreign exchange shortages, and the export potential for confectionary nuts derived from favourable prices being offered in overseas markets. After sunflowers became a controlled commodity in 1983 prices have been set at levels closely allied to soyabean prices. Expansion in sunflower production in the commercial farm subsector only occured after positive steps were taken to reduce grain production by commercial farmers in 1986. The previous lack of interest probably stemmed from the difficulties of growing the crop and the lack of suitable high yielding varieties. Communal farmers production response to price incentives for sunflowers has been relatively indifferent. It is apparent that pricing policies for alternative commodities have probably had a greater influence on sunflower production recently than sunflower pricing itself. Because of the comparatively lower yields per hectare achieved for sunflowers in relation to soyabeans it is obvious that a more flexible pricing ratio between the two commodities should be adopted if continued expansion of sunflower output is to be encouraged.

iv) Zimbabwe has not been self sufficient in wheat production since the late 1970's and wheat stockpiles were depleted by 1982. Production has fluctuated widely during the 1980's mainly due to the depletion of water resources during the drought period (see Chart 4). The crop is well suited to growing in rotation with soyabeans and producers of both commodities benefited from incentive pricing since early in the decade. In its drive to achieve self sufficiency in wheat production government introduced a loan system with low interest rates for irrigation development in 1985 which is tied to wheat production. Being grown during winter months wheat is the only controlled crop commodity for which a preplanting price announcement is made. Wheat import parity prices are an important consideration when producer prices are determined. Prices during the 1980's have tended to be set conservatively and pegged at below import parity

levels (see Table 4). This cautious approach indicates governments objective of reaching a level of self sufficiency in wheat production with little or no surplus for export because of the very limited potential of Zimbabwe being able to compete successfully with major wheat producing countries in world markets. Export potential is limited to countries within the S.A.D.C.C. region, and even then Zimbabwean wheat exports would face intense competition from those emanating from South Africa and international food aid transfers.

v) The long term nature of beef cattle production adds to the difficulty of determining appropriate price levels for this commodity because of the necessity of having to forecast what future market requirements are likely to be. In general beef pricing policies did not favour the interests of producers during the early to middle years of the decade and the consequences of stop - go pricing policies were still being experienced towards the end of the decade. In hindsight the response of holding prices constant or awarding small price increases due to the oversupply situation during the drought years was detrimental, not only to producer interests, but also, in the long run, to the financial viability of the Cold Storage Commission. This pricing policy was aimed specifically at alleviating the short term adverse financial consequences of the substantially increased C.S.C. throughput due to destocking. In turn this increased the trading deficit because of the imbalance between producer prices and wholesale selling prices. The latter prices were set at levels determined by cheap food considerations (see Table 5). Had producers received better prices at the time the improvement in production viability would have reduced the rate of destocking as they would have been able to afford to buy in more stockfeeds and maintain a larger nucleus of breeding stock on their farms. This would have assisted in accelerating the growth of the commercial herd size after the drought period and gone some way towards preventing the much reduced C.S.C. annual throughput which adversely affected the Commission's financial performance later on in the decade. The better supply situation would have also served to dampen the bouyancy of open market prices and the burgeoning black market in beef which started to develop in 1985. Thus short term subsidy considerations in the early 1980's may have in fact compounded the financial difficulties being experienced by the Commission towards the end of the decade.

Another feature which should assume more relevance in determining beef pricing strategies in the future is the ratio of beef prices to those of competing meat products. Beef supply deficits arising in future drought periods are likely to become more acute as Zimbabwe's population grows. Up to and including the 1980's beef cattle producers enjoyed a marketing advantage over producers of alternative meats in that there was an element of subsidy in consumer prices for beef which created an artificially high demand for beef relative to other meats. This adversely affected the ability of poultry, pig, and sheep producers, whose products were not subsidised, to compete freely in the market. As production cycles for these alternative products are very much

shorter when compared to beef production, recovery from supply deficits is also much shorter. In line with trends in meat production in the northern hemisphere there would be advantage in creating a more competitive environment for meat production in Zimbabwe by allowing consumer prices for beef to rise to levels which would equate supply and demand in a less controlled market. This would reduce the very heavy dependence on one product which has a greater susceptibility to drought and a lengthy supply response in meeting the consumer demand for meat when adverse grazing conditions deplete cattle numbers.

vi) Incentive producer pricing for milk early in the decade was successful in stimulating output back to self-sufficiency levels by the middle of the decade. However standstill pricing in the latter half of the 1980's had the undesirable effect of increasing output further because of the relatively inelastic supply response of milk supply to diminishing gross margins as production costs increased during this period. In turn the increase in milk output served to exacerbate the operating deficits of the Dairy Marketing Board because of the imbalance between producer and consumer prices for milk. It remains to be seen whether the previously mentioned new agreement between dairy producers and the Board will alleviate the financial viability problems facing the industry. Thus milk pricing policies from the middle of the decade to 1988 appear to have destabilised the dairy industry and measures have had to be taken to curb the rapid growth rate in output and to introduce an economically viable ratio between producer and consumer prices to improve the financial position of the Board.

vii) The general inflation of agricultural input prices which began in the 1970's after a period of relative price stability accelerated in the 1980's (see chart 6). The three main input areas affected by rising costs were labour, imported inputs or inputs with an imported element, and stockfeeds. Like in many lesser developed countries with relatively abundant and cheap labour supplies and scarce and expensive capital resources, Zimbabwe enjoys a comparative advantage in the production of commodities which use a high input of labour in relation to other inputs. In the production of some major commodities (eg tobacco, cotton, coffee, horticulture, sugar, tea) labour costs comprise a significant proportion of total direct costs (estimates for tobacco production exceed 33%).61 These commodities are major exports. Governments minimum wage policies during the 1980's have had a significant impact in increasing production costs of these commodities with the consequence that price levels have risen and reduced their competitiveness in international markets.

A high level of short term borrowings (especially for the public sector) in external financial markets occured in the early post independence era, which led to foreign debt repayments amounting to over 30 % of foreign currency earnings towards the end of the decade.62 This development, together with other macroeconomic policies, placed strains on the economy, and foreign currency shortages reduced the countries ability to import essential

inputs for the private sector. These policies also culminated in a large depreciation in domestic currency exchange rates which significantly raised the cost of imports in local currency terms. Despite the system of floating exchange rates an element of moderate overvaluation of the Zimbabwean dollar persisted into the late 1980's.63 Currency overvaluation affected export producers particularly as the local price equivalents for their products were depressed in relation to the true value of the dollar.

Comparatively rapid price inflation during the 1980's had a profound effect on the agricultural sector in the production of those commodities where a high degree of imported input usage prevails. Shortages of many essential inputs served to fuel the price inflation in that farmers often had to pay higher than legally permitted prices to obtain the necessary items to carry out their farming operations. The economic viability of production was seriously eroded over the period as producer prices for many commodities did not rise as fast as costs of production (see chart 6). The resulting squeeze in profitability was only partly offset by advances in production technology. Research into cost saving production methods (eg minimum tillage techniques) gained greater prominance during the decade. Productivity also continued to improve with the adoption by growers of new seed varieties for some commodities during the decade. A general lack of reliable production data for the communal farm areas persists and firm conclusions on improvements in productivity cannot be drawn. However increased sales of many of the major commodities produced in these areas to the marketing boards, and the fact that many communal farmers now have access to credit facilities to buy inputs, indicate that yields are probably increasing. The effects of input price inflation on production viability will assume greater significance as communal farmers adopt production techniques which require a higher application of purchased inputs in the future.

The effects of price inflation in reducing the economic viability of agricultural production in the 1980's was exacerbated by the existence of two pricing methods in agricultural pricing. Many agricultural inputs are priced using the standard "mark-up" pricing system which is commonly practiced in commerce. This method has the advantage of retaining the purchasing power of returns to the seller in a price inflationary situation. The second method of pricing involves restoring gross margins in nominal dollar terms to previous levels, which has the disadvantage of not taking into account the full depreciation in purchasing power caused by price inflation. The second method has tended to be favoured in setting producer prices for controlled commodities. The use of two methods in pricing inputs and output has contributed to a general decline in profitability levels and increased risks of production during the decade. It has also resulted in the sometimes large producer price awards that have been necessary during the decade to reverse marked declines in levels of production for some commodities due to eroding profit levels. Finally the two pricing systems in operation create a

bias in the terms of trade between agriculture and the manufacturing and distribution sectors which favours the latter sectors in times of price inflation.

- Stockfeeds are the major input in livestock production and in many livestock production systems feeding costs comprise more than half of total direct costs. The stockfeed industry in Zimbabwe is relatively well developed and the country is largely self sufficient in the production of this major input. The industry uses locally produced grain and oilseed by-products as basic ingredients in the manufacture of stockfeeds, and stockfeed pricing is highly dependent on the prevailing levels of marketing board selling prices. Prices of some by-products (eg cotton seed meal) are directly set by government. Stockfeed prices rose markedly after the removal of the subsidy element in oilseed cake prices in 1983. This resulted in a much reduced economic viability for livestock production other than those systems based primarily on grassfeeding. This prompted many livestock producers (especially dairy farmers) to home-mix their own feed concentrates, to increase fodder usage in feeding programmes, and to develop legume and other types of pastures on their farms. Other than for this event the pattern of producer and selling price setting for the major stockfeed input crops (maize, cotton, and soyabeans) has generally been advantageous to livestock production in the latter half of the decade. Periods of static maize and oilseed meal prices have contributed to stockfeed prices being similarly held constant at certain times during this period.

viii) In response to the sometimes high operating deficit levels of the agricultural marketing boards during the 1980's there has been a move to develop better methods of pricing the various controlled commodities which take into account efficiency criteria. Some work has been carried out by researchers (eg Jansen, Morris, O'Driscoll and Takavarasha) on the use of domestic resource cost analysis in agricultural pricing which is used to measure the social cost and comparative advantage to the country of producing different commodities.64 The method relies heavily on the use of border prices in determining pricing efficiency standards for tradable inputs and commodities and opportunity costs in deriving efficiency standards for non-traded inputs and outputs. The methodology is still in the early stages of development and sometimes very subjective estimates are made in computing shadow prices for items such as communal area labour, and the level of domestic currency over-valuation. Accurate costs of production modelling is critical to assessing the relative advantage to the country of producing particular commodities otherwise wrong conclusions are drawn. There are also several other difficulties associated with this type of analysis. Nevertheless as more information becomes available in the future it is possible that domestic resource cost analysis can play a useful role in agricultural price determination.

G. CONCLUSION

Agricultural pricing policies, in a very general sense, have been successful in achieving production targets for the various statutorily controlled commodities, and have maintained food self-sufficiency for most products during the 1980's. They have also served to induce communal farmers to increase their sales of surplus production of several commodities to the marketing boards thereby improving the cash economy of that subsector. Moreover government has pursued its intention to maintain low food prices for low income groups and consumers have benefited from 'cheap food' policies during the decade.65 However, the situation was not achieved without problems, and this section has outlined some of these. From an evolutionary aspect it can be said that price setting for controlled agricultural commodities in the 1980's has been more complicated than in previous decades. The levels of price inflation experienced were generally much higher than those experienced previously which makes setting correct price levels and achieving a satisfactory balance of intercommodity price relationships more difficult. Fluctuations in output due to unpredictable factors such as drought, and the financial consequences of these swings in production further complicated the process of setting "correct" price levels. This experience should contribute to the development of better agricultural pricing methodology in the future.

Table 1 MAIZE PRODUCTION AND PRICES

Growing Year	Producer Price * $/tonne	Selling Price * $/tonne	Area ** 000 ha
68/9	33.55	43.02	243
69/70	39.16	43.02	249
70/1	34.32	43.02	261
71/2	29.59	43.24	299
72/3	39.71	43.24	277
73/4	39.32	43.24	273
74/5	41.61	51.54	242
75/6	47.34	51.54	222
76/7	51.70	51.54	230
77/8	51.99	57.07	202
78/9	60.50	63.89	191
79/80	85.00	89.00	218
80/1	120.00	137.00	287
81/2	120.00	137.00	262
82/3	120.00	157.00	223
83/4	140.00	177.00	190
84/5	180.00	222.00	200
85/6	180.00	222.00	200
86/7	180.00	222.00	110

* A grade
** Large scale commercial area

Sources Ministry of Agriculture, Agricultural Statistics
A.M.A., Grain Situation and Outlook Reports
C.S.O., Crop Production Forecasts

Table 2 COTTON PRODUCTION AND PRICES

Growing Year	Producer Price cents/kg	Average Domestic Price * cents/kg	Average Export Price * cents/kg	L.S.C.F Area 000 ha	Small Farm Area 000 ha
68/9	15.17	14.97	15.28	76	12
69/70	15.17	15.36	15.87	55	20
70/1	16.34	15.96	17.73	57	29
71/2	18.30	19.54	18.58	59	41
72/3	26.59	26.13	21.90	69	40
73/4	28.00	33.51	32.69	87	78
74/5	26.25	24.12	25.55	81	69
75/6	35.88	29.93	34.64	58	44
76/7	33.00	34.77	36.05	75	50
77/8	33.00	31.28	36.80	86	54
78/9	34.00	35.78	39.68	77	30
79/80	37.50	38.73	45.06	80	24
80/1	40.00	41.78	50.02	68	72
81/2	51.50	41.19	49.51	56	61
82/3	51.50	41.19	49.01	61	77
83/4	57.00	45.91	66.13	75	116
84/5	67.00	55.84	88.80	75	154
85/6	75.00	58.39	80.06	54	149
86/7	80.00	57.65	65.70	68	175

* Lint prices converted to seed cotton price equivalent (35%)

Sources Ministry of Agriculture, Agricultural Statistics
A.M.A., Cotton Situation and Outlook Reports

Table 3 SOYABEAN PRODUCTION AND PRICES

Growing Year	Producer Price * $/tonne	Selling Price * $/tonne	Area 000 ha
68/9	83.88	90.20	6
69/70	83.96	65.60	12
70/1	84.34	58.79	8
71/2	73.08	58.52	6
72/3	81.81	91.43	8
73/4	109.01	123.57	11
74/5	102.90	101.00	18
75/6	102.90	101.00	25
76/7	129.25	101.00	24
77/8	140.25	121.75	35
78/9	145.00	130.00	40
79/80	160.00	168.00	41
80/1	170.00	168.00	31
81/2	200.00	168.00	48
82/3	260.00	168.00	55
83/4	287.00	314.00	53
84/5	320.00	332.00	42
85/6	340.00	361.00	40
86/7	385.00	449.22	55
87/8	420.00		60

* B grade

Sources Ministry of Agriculture, Agricultural Statistics
A.M.A., Oilseeds Situation and Outlook Reports
C.S.O., Crop Production Forecasts

Table 4 WHEAT PRODUCTION AND PRICES

Growing Year	Producer Price * $/tonne	Selling Price * $/tonne	Import Cost $/tonne	Area 000 ha
70	69.45	79.23	n.a.	14
71	69.29	78.02	n.a.	21
72	69.01	77.75	48.00	22
73	69.18	75.49	70.00	21
74	79.89	79.51	117.00	26
75	110.00	79.51	122.00	31
76	121.00	100.07	97.00	33
77	123.00	113.36	-	42
78	110.00	113.36	-	45
79	115.00	120.67	-	34
80	135.00	134.00	-	33
81	165.00	157.00	206.64	36
82	190.00	169.00	188.52	37
83	220.00	239.00	279.44	22
84	250.00	285.00	296.92	17
85	285.00	323.50	303.33	34
86	300.00	358.25	378.17	42
87	330.00	358.25	326.01	38
88	365.00	425.53	n.a.	48

* AS grade

Sources Ministry of Agriculture, Agricultural Statistics
A.M.A., G.M.B. Annual Reports and Accounts
A.M.A., Grain Situation and Outlook Reports
G.M.B.

Table 5 BEEF CATTLE PRODUCTION AND PRICES

Market Year	Average Producer Price	Average Wholesale Price	Average Export Price	Herd Size* millions	Total Slaughters millions
70	35.76	33.92	36	2.44	0.42
71	36.76	33.97	44	2.63	0.51
72	40.38	34.97	47	2.60	0.62
73	48.81	37.41	52	2.43	0.72
74	56.82	41.47	62	2.43	0.55
75	58.96	44.82	59	2.63	0.52
76	57.00	47.42	59	2.76	0.64
77	57.91	47.66	54	2.84	0.72
78	57.26	51.42	58	2.70	0.73
79	70.46	59.39	72	2.40	0.64
80	81.11	63.01	102	2.10	0.52
81	102.13	79.28	183	2.09	0.44
82	129.19	105.06	196	2.10	0.52
83	130.42	122.55	127	2.06	0.53
84	147.98	149.82	146	1.92	0.52
85	153.30	159.42	197	1.76	0.47
86	179.83	172.78	622	1.80	0.39
87	223.95	198.12	606	1.66	0.44

* commercial herd

Sources Ministry of Agriculture, Agricultural Statistics
A.M.A., Beef Situation and Outlook Reports
A.M.A., C.S.C. Annual Reports and Accounts

Table 6 INDEX OF MAIZE PRICES AND SOME MAJOR INPUT COSTS

Growing Year	Producer Price	Fertiliser Index	Labour Index	Tractor Price
69/70	100.0	100.0	100	100
70/1	87.6	100.0	102	102
71/2	75.6	100.0	105	105
72/3	101.4	100.0	117	110
73/4	100.4	100.0	122	116
74/5	106.3	117.4	127	113
75/6	120.9	201.5	130	196
76/7	132.0	184.0	150	196
77/8	132.7	204.7	155	237
78/9	154.5	219.6	178	245
79/80	217.1	224.1	263	322
80/1	306.4	266.1	380	388
81/2	306.4	296.2	535	520
82/3	306.4	327.2	575	730
83/4	357.5	327.2	645	827
84/5	459.6	484.8	755	887
85/6	459.6	642.4	877	1275
86/7	459.6	642.4	997	1282
87/8	498.0	642.4	1165	1313

1969/70 = 100

Sources Ministry of Agriculture, Agricultural Statistics
Ministry of Agriculture, 11th Annual Report of Farm Management Data
A.M.A., Grain Situation and Outlook Reports
C.F.U., Price Lists

Table 7 PRICE SUPPORT, INPUT SUBSIDIES, & DROUGHT RELIEF

A.)

Fiscal Year	Maize	Wheat	Oil-seed	Tobacco	Cotton	Beef	Dairy	Inputs Subsidy	Drought Relief Payment
				$ million					
65/6	0.4			0.1					0.3
66/7		*						0.8	0.7
67/8	2.9	0.1		14.0					5.9
68/9		0.2	*	10.0					
69/70	0.9	0.3	0.2	9.0	1.6				1.9
70/1		0.1	0.2	16.0				1.4	
71/2		*	0.2	19.0				0.8	*
72/3			0.2	20.0				2.2	0.1
73/4				14.7				4.4	10.1
74/5				8.5				10.3	0.2
75/6				8.3					
76/7			0.5	11.7		6.3			
77/8				6.9		11.3	1.9		
78/9	12.8	0.8	1.5		5.0	20.5	3.7		
79/80	4.3		1.4		1.4	12.9	2.1		6.8
80/1	9.7		1.9			9.6	4.1		5.6

1981/2 - 1987/8 Breakdown not available.

* less than $50000

Source : Ministry of Agriculture, Agricultural Statistics

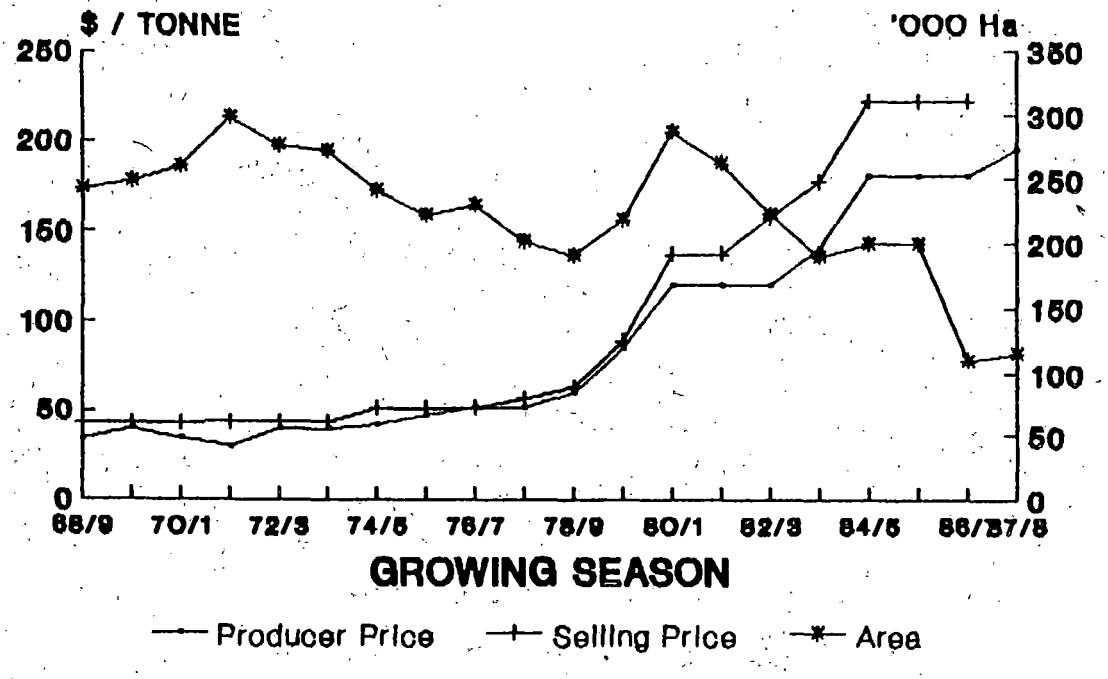
B.) Agricultural Commodity Trading Deficits/(Surpluses)

Marketing Year ending in	Maize	Wheat	Soyabeans	Groundnuts	Cotton	Beef	Dairy
			$ million				
1982	20.4	9.3	2.1	0.5	(0.9)	46.4	18.4
1983	43.6	12.1	5.7	0.6	17.8	45.3	35.6
1984	17.0	10.2	3.6	(0.2)	(4.3)	48.1	38.6
1985	42.6	4.4	(0.5)	0.2	(56.8)	33.4	46.3
1986	46.3	5.8	1.4	0.4	14.3	28.7	55.6
1987	57.3	14.3	(0.2)	0.6	53.9	37.2	
1988	58.5	2.9	(0.3)	0.8	35.4	n/a	n/a

( ) = surplus

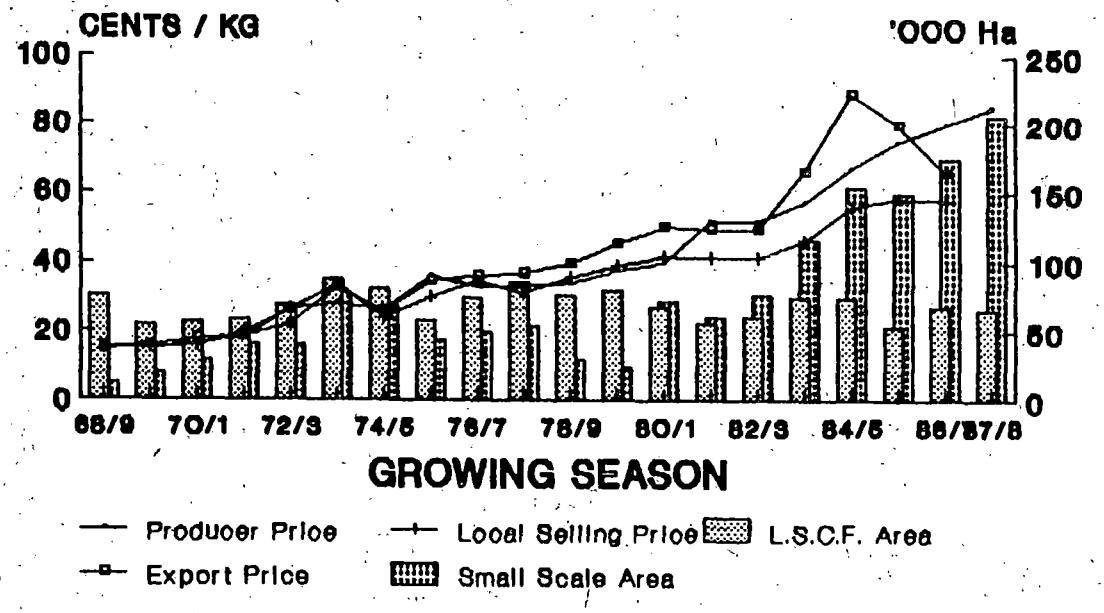
Source : Annual Reports and Accounts of the four Marketing Parastatals

Chart 1. MAIZE
Commercial Area Planted and Prices



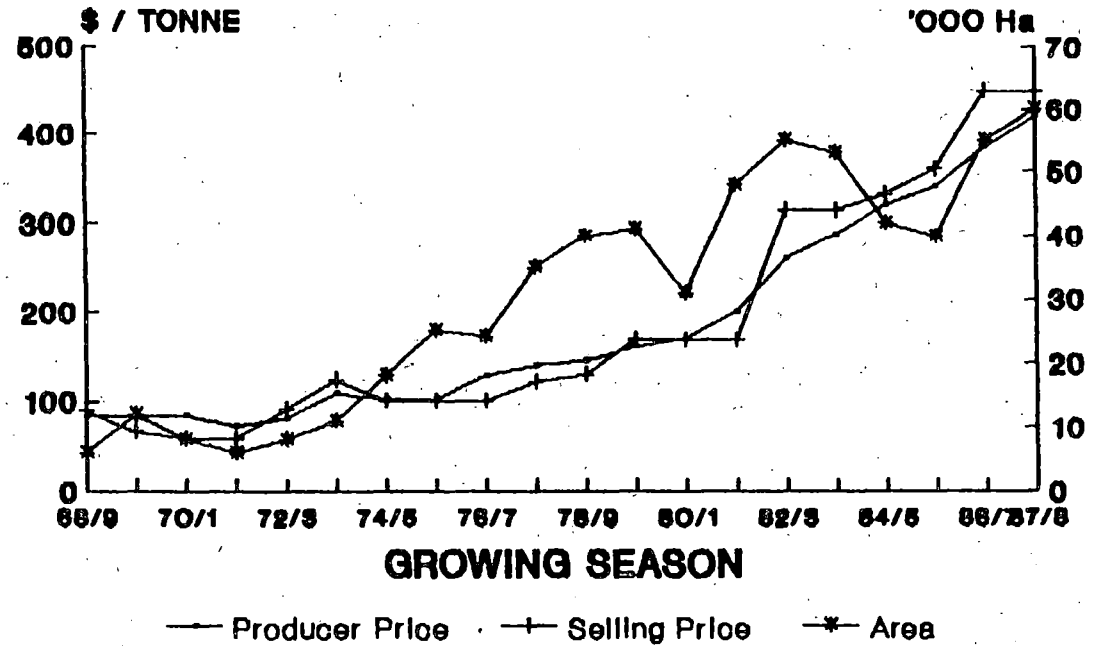
Data from Table 1

Chart 2. COTTON
Area Planted and Prices



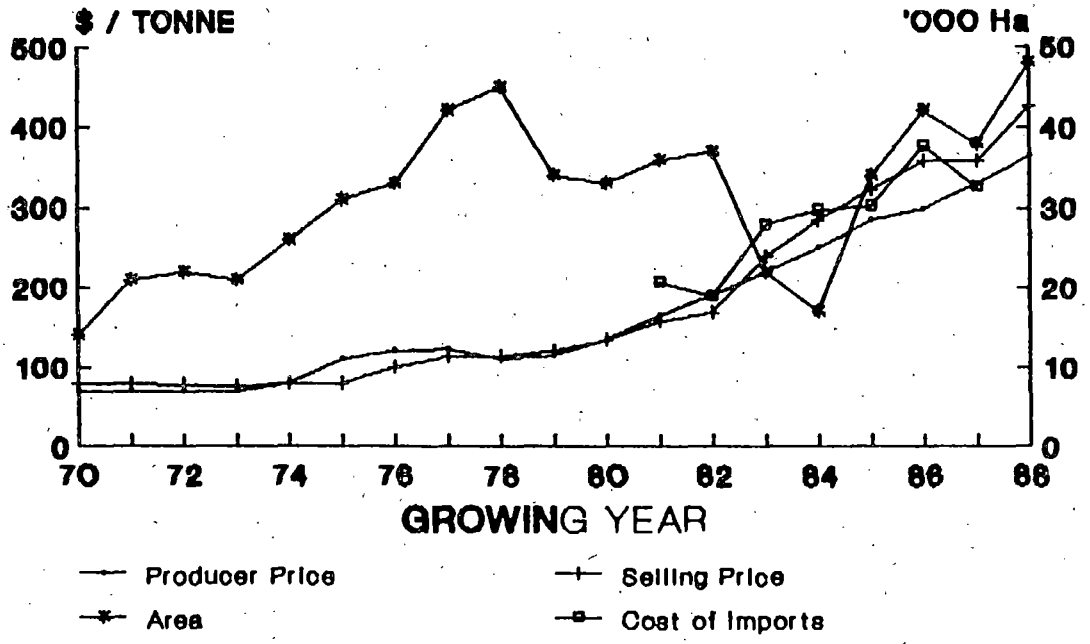
Data from Table 2
Lint prices converted to
seed cotton equivalent prices

Chart 3. SOYABEANS
Commercial Area Planted and Prices



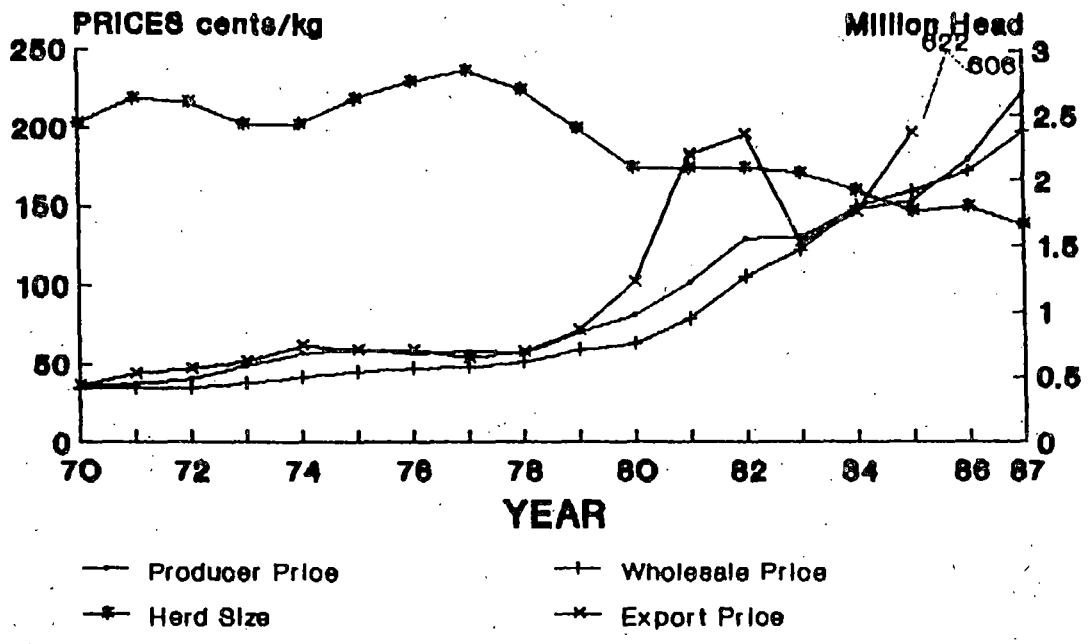
Data from Table 3

Chart 4. WHEAT
Commercial Area Planted and Prices



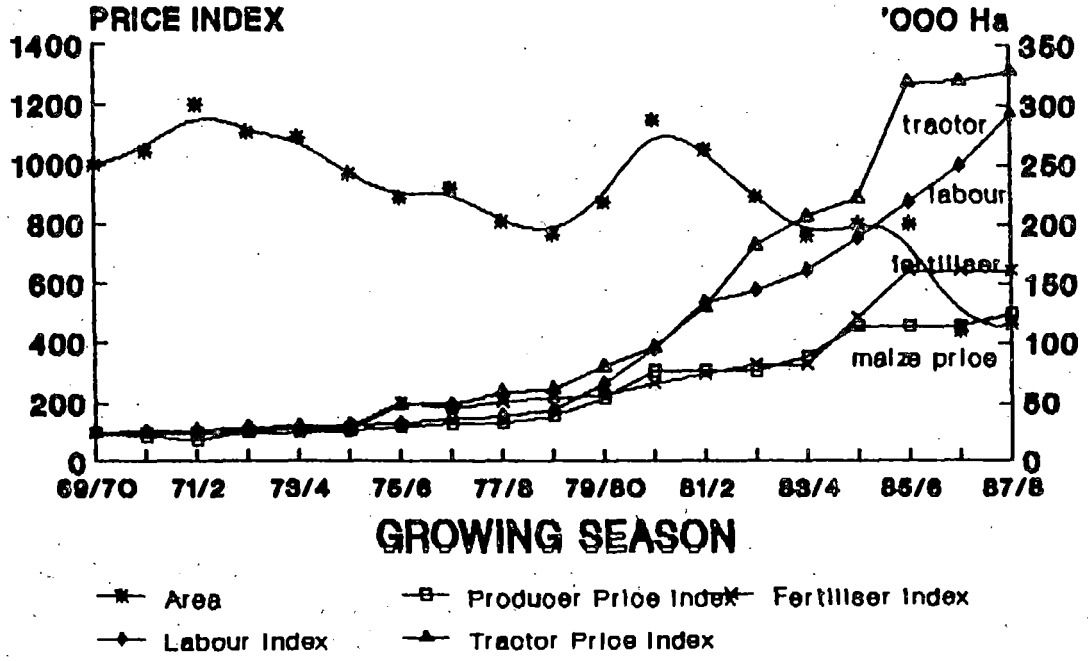
Data from Table 4

Chart 5. BEEF CATTLE
Commercial Herd Size and Prices



Data from Table 5

Chart 6. MAIZE & INPUTS
Price Index for Maize & Major Inputs



Commercial Maize Area shown
1969/70 = 100 Data from Table 6

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